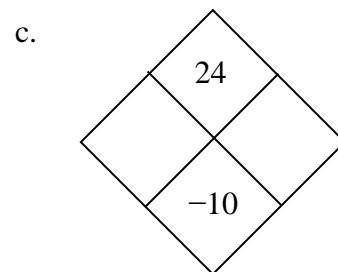
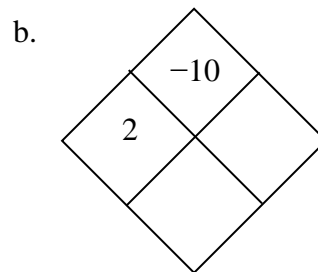
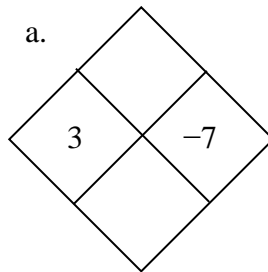


Chapter 1 Test Review

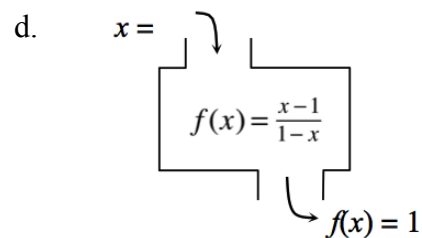
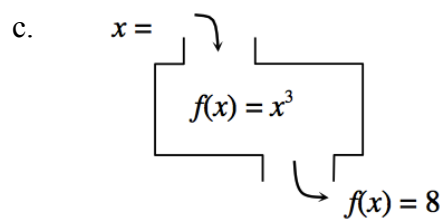
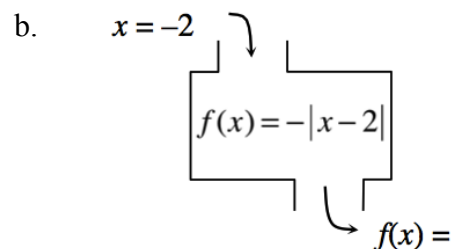
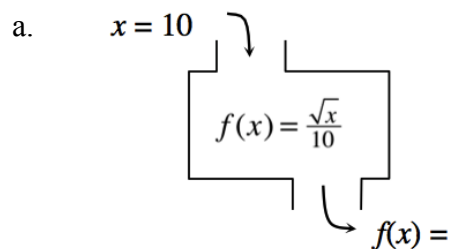
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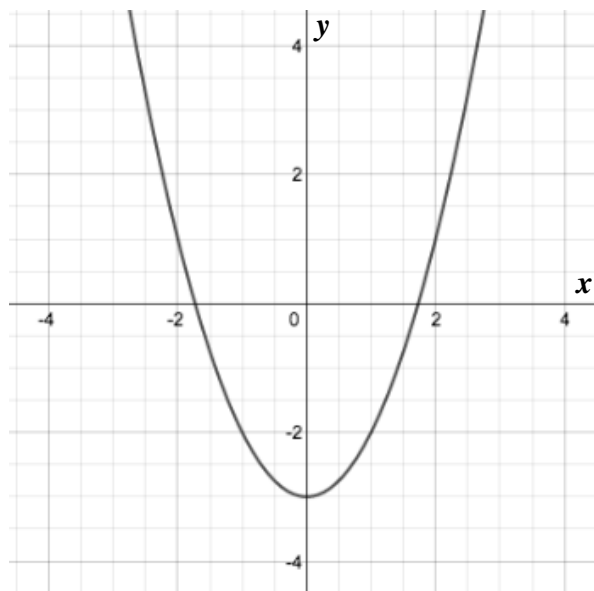
1. Complete each of these Diamond Problems:



2. For each of the following relations, find the missing inputs or outputs. If no input or output is possible, explain why not.

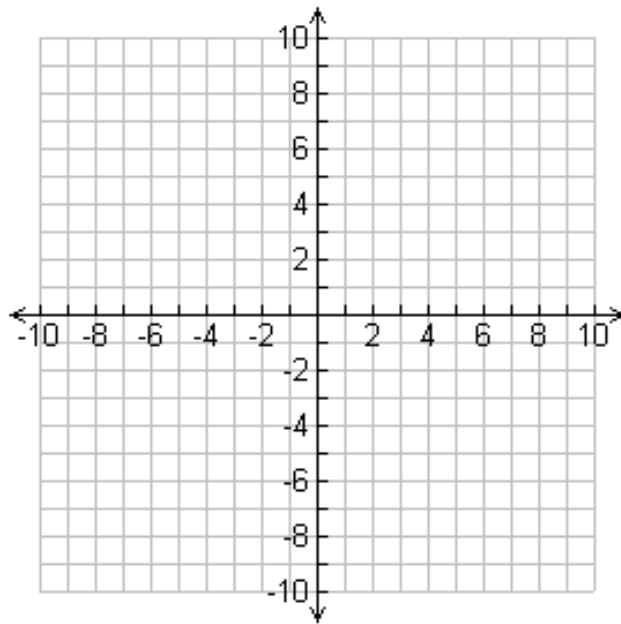


3. Investigate the function $y = x^2 - 3$.



4. For $f(x) = (x - 4)^2$, evaluate each of the following.
- a. $f(3)$
 - b. $f(-2)$
 - c. $f(0)$
 - d. $f(4)$
 - e. Find the value(s) of x for which $f(x) = 25$.
5. For $f(x) = \sqrt{2x - 8}$, evaluate each of the following.
- a. $f(12)$
 - b. $f(6)$
 - c. $f(4)$
 - d. $f(0)$
 - e. Find the value of x for which $f(x) = 3$.

6. Draw a complete graph for the rule $y = x^3 - 1$



7. Hamal has a new part-time job bagging groceries after school. The equation $y = 10x + 50$ shows the relationship between his hours of work (x) and the amount of money in his bank account (y).
- How much money did he have in his bank account before he started working? How can you tell from the equation?
 - How much is Hamal earning per hour? Justify your answer.

8. MacKensie solved the following equation showing all of her steps. Estefan, a member of her group, thinks that there is an error. Who is correct? Explain how you know. If Estefan is correct, then explain MacKensie's mistake and make changes to solve the problem correctly.

$$\begin{aligned}2(y + 1) - 2 &= 4 + 2y - y \\2y + 2 - 2 &= 4 + y \\2y &= 4 + y \\2y - y &= 4 + y - y\end{aligned}$$

9. Build each equation, simplify and solve for x . Be sure to record each step of your solution process.

a. $2x - 5 = 5$

b. $-2 + 4x - 1 = 4 + x - 1$

10. Simplify Each of the following expressions.

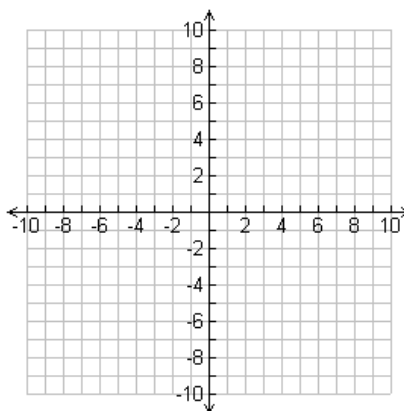
A. $6 \div (-2) + 5 + |8 - 12|$

B. $3 + (5 - 3)^2 \cdot (-6)$

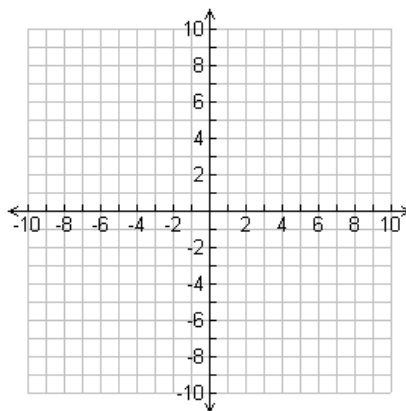
C. $3 + \sqrt{49 - 6.5 \cdot 2}$

11. For each of the following below draw a sketch of what its graph looks like.

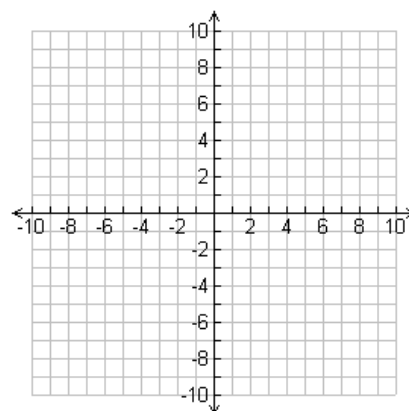
a. Quadratic



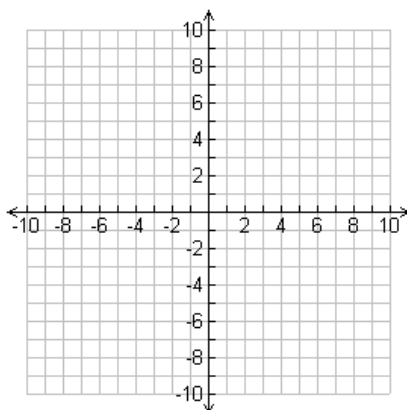
b. Cubic



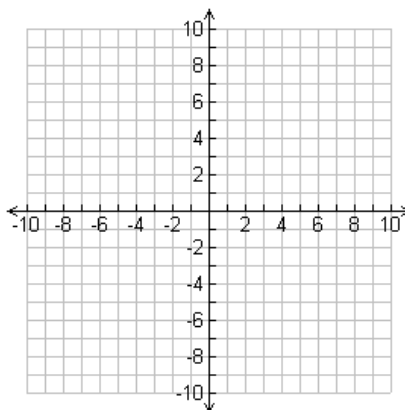
c. Absolute Value



d. Square Root



e. Linear



f. Cube Root

